



Australian Government

Australian Fisheries Management Authority



**Southern Squid Jig Fishery
Resource Assessment Group
(SquidRAG) Meeting 19**

Meeting Minutes

Date: 17 October 2014

Venue: Holiday Inn, Melbourne

Attendance

Name	Membership (type i.e. chair etc.)
Lianos Triantafillos	Chairperson
Debbie Wisby	Industry member
Ian Knuckey	Scientific member, Fishwell Consulting
Robert Curtotti	Economics member, ABARES
David Power	AFMA member
Andrew Trappett	Executive officer, AFMA
Glen Wisby	Invited participant, industry

Minutes

Item No.	Discussion	Action Items / Rec's
1 Preliminaries		
1.1 Introduction and Apologies	The Chair opened the meeting at 10:00am and welcomed participants. The RAG noted that invited participant Louis Hatzamahalis (squid and scallop fisherman) was unable to make it to the meeting as planned and that the chair had canvassed his views on a few items out of session and would present them during the course of the meeting.	
1.2 Adoption of Agenda	The draft annotated agenda (Attachment 1) was adopted with the addition of the following items: <ul style="list-style-type: none"> • an economics report (2.3) • an update on electronic logbooks (3.2) • development of squid industry association (3.1). 	
1.3 Declaration of interests	The RAG followed the conflict of interest declarations as outlined in the revised Fisheries Administration Paper 12 (FAP12). A list of the full conflicts of interest declarations made by SquidRAG for the meeting/teleconference is provided in Attachment 2 . The RAG noted conflicts of interest declared by Debbie Wisby, Glen Wisby and Ian Knuckey. The RAG agreed that it would be valuable to have them participate in the discussions on the TAE, research priorities and electronic logbook agenda items, noting their interests at each item.	
1.4 Actions arising	AFMA advised the RAG of the status of actions arising from SquidRAG 18 held in October 2013. A summary of these actions is provided in Attachment 3 .	
2 Business		
2.1 Manager's report	AFMA member, Mr David Power, provided the RAG with an update on the status of the fishery, outlining the current low level of catch and effort in the SSJF. It was noted that no squid research projects relevant to the SSJF are currently in progress.	
2.2 Industry report	Industry member Mrs Debbie Wisby and invited industry participant Mr Glen Wisby updated the RAG on several industry matters: <ul style="list-style-type: none"> • only their business had fished in the SSJF to date in 2014 with nine days of fishing over January and February with only 7 squid boats left in the fleet nowadays. • good aggregations of Gould's squid had been located on the NSW/Victorian border at night but by day the patches of squid were being depredated by other fish species (tuna, marlins and 	



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	<p>leatherjackets etc).</p> <ul style="list-style-type: none"> • industry had been advised that a different colour of projected light may be required to attract only squid and not other predatory fish species. Korean fishers had found that light colour was a significant factor influencing catch rate. • good prices for Gould's squid are available in QLD (~\$6/kg) and in Sydney for good quality squid. • long-liners had reported catching Gould's squid a long way off shore. • examination of Chlorophyll A concentration maps had indicated that conditions that may lead to good squid catches (such as oceanic gyres and krill) were far offshore this year. • RAG noted lack of understanding in Australian waters of the impacts of currents and oceanic conditions on hatching squid and use of currents by squid on a day/night cycle. • Mrs Wisby advised that their business has bought an ex-trawl boat that could freeze up to 30t of squid on board (too far to steam and unload fresh product between catches) intends to act as a need to go where the fish are and potentially act as a mother ship for other boats to unload onto. • need exists for a squid fishers association that can maintain a good quality of product, maintain market supply and increase communication among the fleet to aid finding commercially viable squid aggregations. . 	
<p>2.3 Economic report</p>	<p>The RAG economic member, Robert Curtotti updated the RAG on matters relevant to the economics of the SSJF:</p> <ul style="list-style-type: none"> • Gould's squid prices from Sydney Fish Markets appeared to be higher now relative to previous years. RAG industry member advised that most of the product from her business in recent seasons had been sent to Melbourne processors for around \$1.50 to \$2.20/kg. It was also reported that Melbourne based processors were importing foreign product at ~\$4/kg. • overall imports of squid appear to be down in volume but import prices have remained high (\$6) over the 2013-14 financial year Y. The RAG noted that there existed a global shortage of squid in international markets. • RAG also noted that the Japanese fleet not was currently fishing due to high operating costs and Korean fleets are taking the Japanese share of the market. • it was recommended that working to align state and commonwealth management measures would help optimize the fishery economics. 	<p>Action 19.1: Robert to send around ABARES squid price series data to the RAG</p>
<p>2.4 Harvest strategy status and options</p>	<p>RAG provided comments on the appropriateness of the <i>Arrow (Gould's) Squid Harvest Strategy</i> in line with the prepared paper.</p> <p>The RAG considered that the triggers of the harvest strategy are useful and precautionary enough and would allow the fishery to exploit boom years in the squid stock should they occur.</p> <p>The RAG noted</p> <ul style="list-style-type: none"> • the need for AFMA to monitor squid catches as the season progresses to ensure the appropriate response is implemented should the triggers be met. • the need for AFMA to supply the RAG with further guidance in terms of the role of the RAG in responding to a trigger being 	



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	<p>breached should it occur</p> <ul style="list-style-type: none"> • RAG recommended AFMA consider duplicating the triggers of the squid harvest strategy within the trawl strategy. • Difficulties in using MEY as a target in an 'annual', relatively data poor fishery such as the SSJF and the alignment between the squid harvest strategy and the Commonwealth Harvest Strategy Policy, and noted that the squid harvest strategy may have to be realigned given the outcome of the review of the Commonwealth Harvest Strategy Policy once released. 	
<p>2.5 Total Allowable Effort recommendation for 2015 SSJF Season</p>	<p>In recommending the TAE the RAG considered information circulated by AFMA in the paper "Total Allowable Effort for the 2015 Season".</p> <p>It was noted that catches of Gould's squid from all sources during 2014 were very low compared to previous years. In the Southern Squid Jig fishery (SSJF) there has been 9 days of fishing effort with less than two tonnes caught between Jan and Oct 2014. Catch in the South East trawl fishery (SET) reported in logbooks as 155 tonnes for the first nine months of 2014.</p> <p>In Tasmanian state fisheries, preliminary figures show less than one tonne of catch during the 2013-14 financial year. Catch in the Tasmanian state fishery exceeded 1000 tonnes in the 2012-13 financial year.</p> <p>The RAG noted that catch rates during the 2014 season were low for both the SSJF and the SET (incidentally taken in trawl). The squid jig catch per unit effort (kg per fishing hour) is the lowest recorded in the past 10 years. The RAG considered that this was most likely due to very low effort and the squid not being present where the boat fished (only one boat fished for 9 days). Trawl catch per unit effort is very variable and the current rate (~50kg per fishing day) is low but similar to catch rates in 2004 and 2005.</p> <p>Despite the season's low catches and catch rates, the RAG had no sustainability concerns for the fishery. The RAG noted that low catch was most likely a result of Gould's squid not being abundant in the traditional fishing grounds and that the distribution of Gould's squid is strongly driven by environmental factors.</p> <p>The RAG recommended a TAE of 550 standard jigging machines for the 2015 season noting the following considerations:</p> <ul style="list-style-type: none"> • There are no sustainability concerns for Gould's Squid and a TAE of 550 is considered sustainable and, if fully utilised, would not pose a risk to the stock • Squid catch in the SSJF and the Southern and Eastern Scalefish and Shark Fishery are both well below the trigger points of the Harvest Strategy for jig, trawl and combined catch • Ecosystem impacts resulting from this fishery are considered minimal and ecosystem models produced by the CSIRO have estimated the total Gould's Squid stock off south east Australia to be around 500,000 tonnes; several orders of magnitude higher than what has traditionally been harvested by the SSJF and SET. • Whilst the TAE has not been utilised in recent years, it is set at a level that will allow the fishery to develop and latent effort is not considered a sustainability or economic concern • The RAG noted a number of anecdotal reports that high abundances of squid were seen in other fisheries in areas outside the traditional range of the current fleet (100nm offshore) with no freezer boats operating (fleet currently fishes short trips harvesting fresh unfrozen product) • Squid abundance is highly dependent on environmental factors. As there is no monitoring of environmental factors that may indicate squid distribution the RAG was unable to comment on the 	<p>Recommendation: RAG recommended a TAE of 550 standard jigging machines for the 2015 season.</p>



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	<p>likely distribution and abundance of squid outside of the fished areas. RAG recommended that a data set of remote sensing oceanographic data such as sea surface temperature and Chlorophyll A concentration, which are used in other worldwide squid fisheries to monitor abundance and distribution, may be of use in an examination of squid availability to the SSJF.</p> <ul style="list-style-type: none"> Industry members consider that the jig fleets ability to search and find economically viable patches of squid was low at present given market demand, the small number of boats operating and high fuel prices. 	
<p>2.6 Information needs and research priorities</p>	<p>SquidRAG discussed SSJF research priorities with the intention of forming a five year strategic research plan. SquidRAG noted the development potential of the fishery and the contribution that increased squid catches and processor capacity (domestic, export, bait markets) could make to rural economies.</p> <p>SquidRAG noted that as squid are keystone species in marine ecosystems and any squid research would have broad reaching impacts for these ecosystems and a lot of other fisheries. It was noted that understanding squid abundance and migration would be critical for understanding the impacts of climate change (as squid are highly dependent on changes to oceanic currents) which should be a broad level research priority for all fisheries.</p> <p>SquidRAG requested that AFMA provide members with a summary of recent research projects relevant to the SSJF.</p> <p>RAG recommended SSJF research priorities:</p> <ol style="list-style-type: none"> Improving the location and targeting of economically viable aggregations of squid available to the squid jigging method. <p>Comments: SquidRAG recommends that the fishery better understand the distribution of squid and their availability to the fishery. RAG feels that the resource is presently underexploited with large aggregations of the resource in the area of the SSJF but it is difficult for fishers to locate the aggregations. Several cues are available that may help the fishery better focus their targeting practices:</p> <ul style="list-style-type: none"> Remote sensing data on sea surface temperature, chlorophyll A concentrations etc. Abundance records of sharks that predate on squid (e.g. mako sharks caught on boats for tagging have large number of squid stomach contents). New Zealand data on characterizing where squid have been caught relative to environmental factors. <p>SquidRAG recommended that a desktop review be commissioned on squid availability data. It was considered that if AFMA and the RAG were to obtain a focused literature review of overseas research on environmental factors the RAG could narrow down which factors would be most likely to predict squid catches and further investigation could be conducted.</p>	<p>Action 19.2: AFMA to provide the RAG with a summary of recent research projects relevant to the SSJF.</p> <p>Action 19.3: EO to invite relevant PhD students with squid expertise to present their findings to the RAG at next in person meeting.</p> <p>Action 19.4: Chair to circulate the NZ squid fishery characterization document that was prepared.</p> <p>Action 19.5: EO to send out recent economic research on SSJF conducted in 2010 by consultant.</p> <p>Action 19.6: AFMA to work with SquidRAG to develop initial research priority points into a five year research plan.</p>



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	<p>2. Improving the SSJF fishing fleets ability to catch squid.</p> <p>Comments: SquidRAG considered that economics of the fishery could be improved by bringing in foreign expertise to demonstrate to Australian squid fishers how to more effectively find fish, employ the most effective light colour to maximize shading under the boat and how to employ other squid fishing techniques. An alternative is to use industry development scholarships granted by the government to send Australian squid fishers to foreign fisheries to gather facts.</p> <p>3. Alignment of management frameworks between Commonwealth and State arrangements.</p> <p>Comments: SquidRAG supported any future alignment of management frameworks between the Commonwealth squid fishery and state squid fisheries (<i>NB</i> – state fisheries are defined as those within 3nm distance of state coastlines, with the Commonwealth managed SSJF area being outside 3nm; fishers are known to purposely target squid within 3mn in Tasmanian waters to avoid the need to participate in the Commonwealth managed fishery by purchasing fishing rights). There are likely economic benefits in sharing arrangements and an increased fleet size may assist in more effective 'scouting' for squid aggregations.</p>	
3 Other Business		
<p>3.1 Development of a squid industry association</p>	<p>Industry member Mrs Debbie Wisby updated the RAG on her initiative to develop a simple, effective squid industry association with the seven remaining active fishers. The intention of the association is to:</p> <ul style="list-style-type: none"> • assist in developing the locally caught SSJF product • set standards for best squid fishing practices • ensure a good supply of quality product is brought to markets. • assist in co-ordinating fishing to better locate commercially viable squid aggregations. <p>Mrs Wisby advised that there exists a range of opinions regarding research priorities and how the fishery should be managed and the association would consult with AFMA and the RAG to ensure the most cost effective options were pursued for industry. It was advised that some industry members are not in favour of paying for excess research and feel management fees are high enough as it is.</p> <p>The AFMA member Mr Power, advised that AFMA would be supportive of the idea and advised that AFMA can provide logistical support in facilitating the establishment of an association. Dr Knuckey advised that to maximize effectiveness the association should set firm terms of reference that are limited to a few major 'platform' issues rather than attempt to focus on all members concerns.</p>	
<p>3.2 Update on electronic logbooks</p>	<p>Dr Knuckey provided the RAG with a brief overview of how electronic logbooks (e-logs) function and advised that 20 to 25 trawl vessels were using the OLRAC system in AFMA fisheries delivered by his company as one of AFMA's two approved e-log service providers.</p> <p>The RAG noted the advantages of the use of e-logs:</p>	



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	<ul style="list-style-type: none"> - Drop down fields with pre-programed data population - Automatically sends to AFMA when in range of 3G network - Near real time fishing information sent to AFMA <p>SquidRAG noted that Tasmanian fishers did have a spatial logbook with catch and effort data but noted large lags before it was input into the DPIPWE database. The RAG recommended that a monthly e-log data dump could potentially be provided by Tasmanian fishers via the proposed industry association members to AFMA to ensure that up to date information was available to assess the squid catches.</p>	
<p>3.3 Meeting close</p>	<p>AFMA advised that they would draft a research plan and send around to the RAG members for comment out of session.</p> <p>A list of actions arising from the current meeting is tabled at Attachment 4.</p> <p>RAG chair thanks participants for a productive meeting and closed the meeting at 15:30.</p>	

Signed (Chairperson):

Date:

List of Attachments

- 1) SquidRAG 19 Annotated Agenda
- 2) SquidRAG Declared conflicts of Interest
- 3) Actions arising from SquidRAG 18 2013 and status
- 4) Actions arising from SquidRAG 19 2014



Attachment 1

**Annotated Agenda
Southern Squid Jig Fishery Resource Assessment Group (SquidRAG) meeting**

17 October 2014, 10:00 am

1. Preliminaries

- 1.1 Introduction and apologies
- 1.2 Adoption of agenda
- 1.3 Conflict of interest procedures
- 1.4 Actions arising from previous meeting

2. Business

- 2.1 Manager's report
- 2.2 Industry report
- 2.3 Economics report
- 2.4 Harvest strategy status and options
- 2.5 TAE recommendation for 2014 season
- 2.6 Information needs and research

3. Other business

- 3.1 Development of industry association
- 3.2 Update on electronic logbooks
- 3.3 Meeting close



Attachment 2**SquidRAG Declared Conflicts of Interest as of 17 October 2014**

Participant	Membership	Interest declared
Lianos Triantafillos	Chair	No interests declared, pecuniary or otherwise. Involved in broad research projects though none specifically squid related.
Debbie Wisby	Industry member	Commercial squid fisher. Financial interest in the fishery declared.
Ian Knuckey	Scientific member	Range of SESSF research interests declared. Member of several AFMA committees. Interest in electronic logbooks declared; one of two approved companies providing e-log services for AFMA clients.
David Power	AFMA member	No interests declared, pecuniary or otherwise.
Andrew Trappett	Executive Officer	No interests declared, pecuniary or otherwise.
Robert Curtotti	Economics member	No interests declared, pecuniary or otherwise.
Glen Wisby	Industry, invited participant.	Commercial squid fisher. Financial interest in the fishery declared.



Attachment 3

Actions arising from SquidRAG 18, 2013.

Action No.	Action required	Responsibility	Completion status
SquidRAG 18.1	AFMA to update the SquidRAG website with Minutes from 2010–13.	AFMA member	Complete. Minutes available on website. New SharePoint site to allow RAG members access to all past papers, minutes, register of documents
SquidRAG 18.2	AFMA to write to the Tasmanian Department of Primary Industries, Parks, Water and Environment to arrange timely access to squid data in the future.	AFMA member	Complete
SquidRAG 18.3	AFMA to circulate papers regarding the proposal of electronic logbooks to SquidRAG.	AFMA EO	Complete
SquidRAG 18.4	AFMA to consult with the Chair to collate and distribute relevant research to SquidRAG members.	AFMA EO, Chair	Ongoing, EO to send around a summary of available research following SquidRAG 19
SquidRAG 18.5	AFMA to check the maximum number of squid jigs allowed per boat.	AFMA member	Complete – There is no formal limit



Attachment 4

Actions arising from SquidRAG 19, October 2014.

Action No.	Action required	Responsibility	Completion status
SquidRAG 19.1	Economics member to send around ABARES squid price series data to the RAG.	Economics member – Robert Curtotti	Complete – price series emailed to members by Robert 16.12.14
SquidRAG 19.2	AFMA to provide the RAG with a summary of recent research projects relevant to the SSJF.	AFMA	
SquidRAG 19.3	EO to invite relevant PhD students with squid expertise to present their findings to the RAG at next in person meeting.	AFMA	-
SquidRAG 19.4	Chair to circulate the NZ squid fishery characterization document that was prepared.	RAG Chair	-
SquidRAG 19.5	EO to send out recent economic research on SSJF conducted in 2010 by consultant.	AFMA	Complete – report emailed to members by EO 16.12.14 -
SquidRAG 19.6	AFMA to work with SquidRAG to develop initial research priority points into a five year research plan.	AFMA and SquidRAG members	-

